UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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11/30/2009

Eric P. Summa, Chief
Planning Division - Environmental Branch
Jacksonville District
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Subject: **EPA's Review Comments on the Draft Integrated General Reevaluation Report and Supplemental Impact Statement (DSEIS) for the Hurricane and Storm Damage Reduction Project (Mid-Reach Segment), Brevard County**

Dear Mr. Summa:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the U. S. Army Corps of Engineers' (Corps) Draft Integrated General Reevaluation Report and Supplemental Impact Statement (DSEIS) for the Hurricane and Storm Damage Reduction Project (Mid-Reach Segment), Brevard County, Florida. Under Section 309 of the CAA, EPA is responsible for reviewing and commenting on major federal actions significantly affecting the quality of the human environment.

EPA notes that this DSEIS addresses a hurricane and storm damage reduction project limited to the 7.8 mile "Mid-Reach" coastal segment of Brevard County, Florida. It is our understanding that the goal of this Brevard County Mid-Reach project is to reduce the erosion-induced damages to shorefront structures along the Mid-Reach study area, and that the Corps "supports the non-Federal sponsor's locally preferred plan and recommends the plan as the Tentatively Recommended Plan." This plan consists of a beach fill varying from a 0-ft to 20-ft extension of the mean high water line, with the addition of "advanced nourishment" to maintain the design fill volume. The Corps reports that the approximate volume of sand to be placed is 409,000 cubic yards, plus another 164,000 cubic yards for advanced nourishment, giving a total fill requirement of 573,000 cubic yards. The Corps also reports that placement of the sand will impact about 3.0 acres of hardbottom areas by direct and indirect cover, of which 1.4 acres is expected to "include some temporal variation as the advanced nourishment erodes." Because the mitigation quantity is based upon a ratio of 1.6 mitigation acres for every acre of hardbottom impacted, mitigation of 4.8 acres is required.

In response to your October 30, 2009 letter, Region 4 appreciates the offer to provide comments on the General Reevaluation Report and DSEIS, and we offer the following:

- EPA previously reviewed Feasibility Report with Final Environmental Impact Statement (FEIS) for Brevard County (1996), and we noted that the Mid-Reach segment was removed from the recommended plan due to environmental concerns.
- EPA concurs with the Corps' subsequent inclusion of the Mid-Reach within the overall Brevard County Hurricane and Storm Damage Project. EPA also concurs with the Corps' decision to assess impacts from all proposed construction and dredging, as well as addressing potential effects at borrow areas, offshore areas, and the ocean bottom. EPA also supports the Corps' efforts to assess impacts from future beach maintenance, as well as requiring pre- and post- environmental monitoring efforts.
- In general, the DSEIS adequately addresses all issues associated with the Brevard County Mid-Reach project, which has been proposed for construction to "reduce the damages caused by erosion and coastal storms to shorefront structures along the Mid-Reach study area." Project objectives have appropriately focused on "reducing storm damages to coastal structures, maintaining the recreational beach, maintaining opportunities for recreational use of the nearshore areas, and maintaining environmental quality."
- EPA recommends that if the comprehensive post-construction monitoring indicates any changes occurring to the beaches and the near-shore environment (e.g., unexpected erosion is detected), the project should be halted for a re-evaluation of the long term shoreline maintenance plan conducted. EPA recommends that any loss of material during construction should be thoroughly investigated, and appropriate remedies enacted.
- EPA strongly recommends the use of adaptive management measures to address potential problems with fish populations and turtle/shore bird nesting. If necessary, the maintenance plan should be modified.
- The EIS adequately addressed a number of alternatives, including both structural and non-structural alternatives. These alternatives adequately addressed beach nourishment while seeking to minimize impact to the nearshore hardbottom.
- EPA recommends that the Corps' future development efforts should consider potential sea level rise.
- EPA notes that the locally preferred plan consists of a 10-foot extension of the mean high water line plus advanced nourishment to maintain that design fill volume in Reach 1 (R-119 to R-l09), a 20-foot extension of the mean high water line plus advanced nourishment to maintain that design fill volume in Reaches 2 and 3 (R-109 to R-99), a 10-foot extension of the mean high water line plus advanced nourishment to maintain that design fill volume in Reaches 4 and 5 (R-99 to R-83), and a dune fill with no

added advanced nourishment in Reach 6 (R-83 to R-75.4).

- EPA recommends that if project construction is delayed for more than a year, an updated survey (to calculate sand volumes) should be initiated.
- EPA notes that the Corps plans to rehabilitate the Poseidon dredged material management area (DMMA) at Port Canaveral, with dredged material from Canaveral Shoals then placed into the Poseidon DMMA every 6 years. The Corps proposes to haul this sand by dump truck to the Mid-Reach for placement on the beach at approximately 3 year intervals. As the renourishment volume is approximately 164,000 cubic yards, EPA notes that this equates to about 16,400 fully loaded trips with a 10-yard dump truck or 8,200 fully loaded trips with a 20-ard truck. The highway haul route for this major sand hauling project should carefully be considered, with particular attention to any load rated bridges on the route and other safety issues. Coordination with local highway officials is needed to ensure that the hauling is accomplished in a safe manner with minimal effects to road and bridge structures.
- EPA notes that the recommended plan appropriately offers erosion protection ranging from a 5-year storm level to a 75-year storm, varying along the length of the Mid-Reach.
- EPA supports the Corps' goal "to avoid, minimize and mitigate environmental impacts to the nearshore hardbottom." EPA notes that the project impacts 3.0 acres of hardbottom out of the total of 31.3 acres of nearshore rock in the Mid-Reach study area. The mitigation quantity has been calculated from the ratio of 1.6 mitigation acres required for every acre of natural rock impacted, resulting in a mitigation of 4.8 acres. EPA does have some environmental concerns regarding the long-term consequences of inundating this hard-bottom habitat, especially since this will not be the last beach nourishment project in the Mid-Reach. Therefore, EPA has identified cumulative impacts as being an issue of concern.
- EPA believes that these hardbottom communities are the premier communities in the local marine environment, and the Final SEIS should therefore document all activities that will prevent detrimental impacts to these communities. The final mitigation decision and final monitoring plans should demonstrate, therefore, that the project will be conducted in an ecologically sustainable manner.
- The Corps' documents appropriately discuss and address project economics, including cost sharing (e.g., the overall Federal participation in cost for the project is reported to be 54% of the NED plan, with the remainder to be non-Federal). EPA notes that the some of the structural valuations used by the Corps (Table 2-15) may no longer be valid based upon recent significant decreases (since 2008) in home prices in the local real estate market, and we recommend that the Corps review these numbers for accuracy before inclusion in the Final SEIS.
- EPA concurs with the Corps' decision to select the project alternative that is the most "economically feasible, environmentally acceptable, and

soundly engineered" out of the range of alternatives considered. EPA requests the Corps' continued coordination with our Agency to resolve any issues that may arise after the Final SEIS is issued.

In summary, EPA does have some environmental concerns regarding the long-term consequences of inundating a hard-bottom habitat, especially since this will not be the last beach nourishment project in the Mid-Reach. EPA requests that the Final SEIS include detailed information on both the final mitigation and final monitoring plans. We therefore rate this Draft SEIS as EC2 (Environmental Concerns – additional information requested). Please include us in any notifications of interagency meetings. Thank you, again, for the opportunity to comment on these documents. If you wish to discuss EPA's comments, please contact me at 404/562-9611 (mueller.heinz@epa.gov) or Paul Gagliano, P.E., of my staff at 404/562-9373 (gagliano.paul@epa.gov)

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management